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This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1995, and items from previous years that were commented upon or corrected in 1995.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

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- user interface design, Integrated Maintenance Information System appl. *Landseadel, P.*, *AES-M Aug 95* 15-20

Automatic test software

- multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S.*, +, *AES-M May 95* 14-25
- US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30
- VLSTA virtual instrum. std. test archit. *Tondre, H.*, +, *AES-M Mar 95* 19-28

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- IEEE Aerospace and Electronic Systems members elected IEEE Fellows. *AES-M Jan 95* 38

B**Backscattering; cf. Radar detection****Batteries**

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- greener batts. cooperation, indust. and EPA. *Telzrow, T.N.*, *AES-M May 95* 35-36
- IC controllers for batts. charging. *Mammano, R.A.*, *AES-M Apr 95* 20-25
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- reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95* 26-29
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- U.S. Army batt. needs, 1990s status and future. *Hamlen, R.P.*, +, *AES-M Jun 95* 30-33
- vehicles propulsion, develop. trends. *Oman, H.*, +, *AES-M Feb 95* 29-35

Biological systems; cf. Visual system**BIST (built-in self-test); cf. Self-testing****Book reviews**

- More Radar Yarns (Simmonds, E.; Ed.). *Brown, L.*, *AES-M Jun 95* 1-2
- South African Radar in World War II (Brain, P., et al.; 1993). *Brown, L.*, *AES-M Jun 95* 1-2

Built-in testing; cf. Self-testing
Business; cf. International trade
Business planning; cf. Manufacturing planning

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CAD (computer aided design); cf. Design automation
Capacitors; cf. Power capacitors
Charge coupled image sensors
 star trackers for attitude determ. *Liebe, C.C., AES-M Jun 95 10-16*
Circuit design; cf. Logic design
Circuit testing
 neural network based cct. faults diagnosis, current monitoring. *Kirkland, L.V., +, AES-M Jan 95 28-30*
Clocks
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Command and control systems
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Commerce; cf. International trade
Communication system control
 DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S., AES-M Jul 95 12-15*
Communication systems; cf. Data communication; Digital communication; Military communication; Optical communication
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Computer aided design; cf. Design automation
Computer applications; cf. Microcomputer applications; Military computing; Neural network applications
Computer buses; cf. Data buses
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Computer control; cf. Digital control
Computer interfaces; cf. Graphical user interfaces; User interfaces
Computer programming; cf. Software design/development
Computers; cf. Aircraft computers; Modular computer systems; Space vehicle computers; Virtual computers
Computer vision; cf. Machine vision
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 Diagnostician on-a-chip. *Nolan, M., +, AES-M Jan 95 9-13*
Conferences; cf. Meetings
Control systems; cf. Aircraft control; Communication system control; Digital control; Intelligent control; Motor drives; Road vehicle control; Servosystems
Cooling
 Stirling machines, emerging technol. and appls. *Ross, B., AES-M Jun 95 34-39*
Current control
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Current regulation; cf. Current control

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Data acquisition
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 aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M., +, AES-M Mar 95 9-13*
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 CASS, design for supportability. *Mena, A.C., AES-M Jan 95 23-27*
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Design methodology; cf. Design automation
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Digital control
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Digital image processing; cf. Image processing
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Display human factors; cf. Aircraft display human factors
Displays; cf. Aircraft displays; Liquid crystal displays
Doppler effect
 S-band surveillance radar sidelobe suppression. *Bucci, N.J., +, AES-M Aug 95 37-43*
Doppler radar
 2 μ m LIDAR for laser-based rem. sens. *Wagener, T.J., +, AES-M Feb 95 23-28*
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ECM (electronic countermeasures); cf. Electronic warfare
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Electrical engineering education; cf. Electromagnetic engineering education
Electric automobiles; cf. Road vehicle electric propulsion
Electric variables control; cf. Current control; Voltage control
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- Image processing**
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- Imaging/mapping; cf.** Millimeter wave imaging/mapping; Radar imaging/mapping
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- Microprocessors**
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- Protocols; cf.** Transport protocols
- Pulse compression radar**
S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
- Q**
- Quality assurance**
TQM, test role. *Neblett, B.*, *AES-M May 95* 26-34
- R**
- Radar**
book review; More Radar Yarns (Simmonds, E.; Ed.). *Brown, L.*, *AES-M Jun 95* 1-2
book review; South African Radar in World War II (Brain, P., et al.; 1993). *Brown, L.*, *AES-M Jun 95* 1-2
ultrawideband microwave radar, conceptual design. *Skolnik, M.*, +, *AES-M Oct 95* 25-30
- Radar; cf.** Airborne radar; Doppler radar; Laser radar; Meteorological radar; Millimeter wave radar; Pulse compression radar; Road vehicle radar; Search radar; Spread spectrum radar; Synthetic aperture radar
- Radar altimetry**
35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
- Radar applications; cf.** Radar altimetry Radar detection; Radar imaging/mapping; Radar target recognition
- Radar cross sections**
RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- Radar detection**
adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
CESM, radar ECCM. *Johnston, S.L.*, *AES-M Feb 95* 36-38
MATLAB simul., PC appl. *Schleher, D.C.*, *AES-M Apr 95* 36-40
mil. radar, crit. role in changing world. *Delaney, W.P.*, *AES-M Nov 95* 8-14
orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, *AES-M Dec 95* 19-24
satellite navig. multistatic passive radar sensor, air/space defense. *Koch, V.*, +, *AES-M Nov 95* 24-32
wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Radar distance measurement; cf.** Radar altimetry
- Radar equipment**
adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
AN/APS-6 airborne radar for fighter aircraft. *Suffield, F.G.*, *AES-M Sep 95* 33-40
- Radar equipment; cf.** Radar receivers
- Radar imaging/mapping**
mil. radar, crit. role in changing world. *Delaney, W.P.*, *AES-M Nov 95* 8-14
SAR imaging systs., profiles. *Birk, R.*, +, *AES-M Nov 95* 15-23
SIR-C/X-SAR, multifaceted radar. *Stuhr, F.*, +, *AES-M Oct 95* 15-24
wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Radar imaging/mapping; cf.** Synthetic aperture radar
- Radar receivers**
CESM, radar ECCM. *Johnston, S.L.*, *AES-M Feb 95* 36-38
satellite navig. multistatic passive radar sensor, air/space defense. *Koch, V.*, +, *AES-M Nov 95* 24-32
- Radar scattering; cf.** Radar cross sections
- Radar signal analysis**
MATLAB simul., PC appl. *Schleher, D.C.*, *AES-M Apr 95* 36-40
supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29
- Radar signal processing**
S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Radar signatures; cf.** Radar target recognition
- Radar target recognition**
adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
- Radar velocity measurement; cf.** Doppler radar
- Radiation detectors; cf.** Microwave detectors
- Radiation effects; cf.** Ultraviolet radiation effects
- Radio altimetry**
35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
- Radio astronomy**
VLBI Space Observatory Programme satellite. *Hirosawa, H.*, +, *AES-M Jun 95* 17-23
- Radio communication; cf.** Aircraft communication; Space vehicle communication; VHF radio communication
- Radio communication equipment; cf.** Radio receivers
- Radio distance measurement; cf.** Radio altimetry
- Radio interferometry**
VLBI Space Observatory Programme satellite. *Hirosawa, H.*, +, *AES-M Jun 95* 17-23
- Radiometry; cf.** Microwave radiometry
- Radio navigation; cf.** Satellite navigation systems
- Radio receivers**
GPS navig. integrity, receiver autonomous integrity monitoring. *Michalson, W.R.*, *AES-M Oct 95* 31-34
- RCS (radar cross section); cf.** Radar cross sections
- RD&E; cf.** Product development
- RD&E management**
hybrid connectionist systs. in research and teaching. *Jain, L.C.*, *AES-M Mar 95* 14-18
- Real time systems**
monocular target tracking syst. *Baumela, L.*, +, *AES-M Jul 95* 4-7
pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42
real-time navig., global positioning syst. *Simon, D.*, +, *AES-M Jan 95* 31-37
- Receivers; cf.** Radar receivers; Radio receivers
- Recursive estimation; cf.** Kalman filtering
- Refrigeration; cf.** Cooling
- Reliability; cf.** Failure analysis
- Remote sensing**
wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Repair; cf.** Maintenance
- Reviews; cf.** Book reviews
- Road vehicle control**
high-perform. automotive radar, autonomous intell. cruise control. *Eriksson, L.H.*, +, *AES-M Dec 95* 13-18
- Road vehicle electric propulsion**
batts. develop. *Oman, H.*, +, *AES-M Feb 95* 29-35
ultracapacitors for elec. vehicles, load-levelling batts. *Dowgiallo, E.J.*, +, *AES-M Aug 95* 26-31
- Road vehicle maintenance**
US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30
- Road vehicle propulsion; cf.** Road vehicle electric propulsion
- Road vehicle radar**
high-perform. automotive radar, autonomous intell. cruise control. *Eriksson, L.H.*, +, *AES-M Dec 95* 13-18
- S**
- Safety; cf.** Protection/safety
- SAR; cf.** Synthetic aperture radar
- Satellite applications; cf.** Astronomical satellites; Satellite navigation systems; Solar power satellites
- Satellite navigation systems**
satellite navig. multistatic passive radar sensor, air/space defense. *Koch, V.*, +, *AES-M Nov 95* 24-32
- Satellite navigation systems; cf.** Global Positioning System
- Search radar**
AN/APS-6 airborne radar for fighter aircraft. *Suffield, F.G.*, *AES-M Sep 95* 33-40

- S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
 wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Self-testing**
 Diagnostician on-a-chip. *Nolan, M.*, +, *AES-M Jan 95* 9-13
- Servosystems**
 act. sidestick controllers for aircraft flight control. *Hegg, J.W.*, +, *AES-M Jul 95* 31-34
- Signal analysis; cf.** Radar signal analysis; Spectral analysis
Signal detection; cf. Nonlinear detection; Radar detection
Signal flow graphs
 multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S.*, +, *AES-M May 95* 14-25
- Signal processing; cf.** Image processing; Radar signal processing
- Silicon materials/devices**
 act. matrix LCD for projection/head-mounted systs. *Spitzer, M.B.*, +, *AES-M Apr 95* 33-35
- Simulation software**
 J-MASS Marketplace, DoD modelling/simul. software implement. *McQuay, W.K.*, *AES-M Sep 95* 23-26
 LabVIEW-based rapid prototyping environ., avionics systs. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95* 9-12
 radar detect. problems solution, MATLAB simul. *Schleher, D.C.*, *AES-M Apr 95* 36-40
- Software; cf.** Automatic test software; Communication system software; Manufacturing automation software; Simulation software
- Software design/development**
 VLSTA virtual instrum. std. test archit. *Tondre, H.*, +, *AES-M Mar 95* 19-28
- Software requirements and specifications**
 DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S.*, *AES-M Jul 95* 12-15
- Solar power satellites**
 mag. inflatable SPS. energy storage. *Ehsani, M.*, +, *AES-M Aug 95* 9-14
- Space; cf.** Extraterrestrial exploration
- Space shuttles**
 future space programs outlook. *Braselton, W.M., Jr.*, *AES-M Mar 95* 3-8
- Space technology**
 orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, *AES-M Dec 95* 19-24
- Space vehicle communication**
 DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S.*, *AES-M Jul 95* 12-15
- Space vehicle computers**
 Indian Remote Sensing Satellite onboard computer, PC-based testing. *Kumar, G.D.*, +, *AES-M Oct 95* 35-38
- Space vehicle electrical systems; cf.** Space vehicle power systems
- Space vehicle maintenance**
 Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95* 3-13
- Space vehicle photovoltaic power systems; cf.** Photovoltaic space power systems
- Space vehicle power systems**
 global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19
 reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95* 26-29
 supercond. space power systs. archits. *Ehsani, M.*, +, *AES-M Aug 95* 3-8
- Space vehicles; cf.** Space shuttles
- Space vehicle tracking**
 star trackers for attitude determ. *Liebe, C.C.*, *AES-M Jun 95* 10-16
- Spectral analysis**
 S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
- Speed; cf.** Velocity measurement
- Spread spectrum radar**
 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
- Standardization**
 tactical C² MMI standardization. *Alston, C.E.*, +, *AES-M Jun 95* 40-44
- Standards**
 supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29
- Standards; cf.** Military standards; Open systems
- State estimation; cf.** Kalman filtering
- Statistics**
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- Stirling engines**
 emerging technol./appls. *Ross, B.*, *AES-M Jun 95* 34-39
- Superconducting magnet energy storage**
 solar power satellite, mag. inflatable, energy storage. *Ehsani, M.*, +, *AES-M Aug 95* 9-14
 space supercond. power syst. archits. *Ehsani, M.*, +, *AES-M Aug 95* 3-8
- Surveillance**
 aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13
 future aviation surveillance systs., US Federal Aviation Admin. *Donohue, G.*, *AES-M Oct 95* 8-14
- S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
 wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Surveillance; cf.** Monitoring
- Synthetic aperture radar**
 adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
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 SIR-C/X-SAR, multifaceted radar. *Stuhr, F.*, +, *AES-M Oct 95* 15-24
- T**
- Target recognition; cf.** Inverse problems; Radar target recognition
- Technical meetings; cf.** Meetings
- Technological innovation; cf.** Patents
- Technology forecasting**
 space research future develop., expanded vision. *Braselton, W.M., Jr.*, *AES-M Mar 95* 3-8
 space supercond. power syst. archits. *Ehsani, M.*, +, *AES-M Aug 95* 3-8
- Testing**
 global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19
- Testing; cf.** Aircraft testing; Automatic testing; Circuit testing; Electronic equipment testing; Manufacturing testing; Power generation testing; Self-testing
- Thermonuclear fusion; cf.** Fusion reactors
- Thin film devices**
 Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Time measurement; cf.** Clocks
- Tracking; cf.** Optical tracking; Space vehicle tracking
- Tracking loops; cf.** Phase locked loops
- Trade; cf.** International trade
- Traffic control; cf.** Air traffic control
- Transducers; cf.** Multisensor systems
- Transition metal materials/devices; cf.** Nickel materials/devices
- Transport protocols**
 fourth-generation avionics digital networks, modular approach. *Schroeder, J.E.*, +, *AES-M Oct 95* 39-42
- Traveling wave tubes**
 airborne radar, high-power folded-waveguide Ka-band TWTs. *Theiss, A.J.*, +, *AES-M Nov 95* 33-36
- U**
- Ultraviolet radiation effects**
 electrodeless UV commun. syst. *Shute, R.D.*, *AES-M Nov 95* 2-7
- Uncertain systems; cf.** Fuzzy systems
- User interface human factors**
 ATE user interface design, Integrated Maintenance Information System appl. *Landseadel, P.*, *AES-M Aug 95* 15-20
- User interfaces**
 ATE enabling technol. for Air Force. *Kirkland, L.V.*, +, *AES-M Jan 95* 14-18
- V**
- Vapor deposition**
 Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Vehicles; cf.** Aircraft
- Velocity measurement**
 wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- VHF radio communication**
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- Virtual computers**
 VLSTA virtual instrum. std. test archit. *Tondre, H.*, +, *AES-M Mar 95* 19-28
- Vision systems (nonbiological); cf.** Machine vision
- Visual system**
 HUD, enhanced vision, image quality issues. *Todd, J.*, +, *AES-M Mar 95* 40-44
 wide angle HUD for synthetic vision. *Wisely, P.L.*, *AES-M Feb 95* 13-18
- Voltage control**
 IC controllers for batts. charging. *Mammano, R.A.*, *AES-M Apr 95* 20-25
- W**
- Waveguide antennas**
 RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- Waveguide components**
 airborne radar, high-power folded-waveguide Ka-band TWTs. *Theiss, A.J.*, +, *AES-M Nov 95* 33-36
- Weapons**
 C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34
 CASS, design for supportability. *Mena, A.C.*, *AES-M Jan 95* 23-27
- Weather; cf.** Meteorology
- Wind**
 2 μm LIDAR for laser-based rem. sens. *Wagener, T.J.*, +, *AES-M Feb 95* 23-28
 low altitude wind shear detect., airport surveillance radar. *Weber, M.E.*, +, *AES-M Jun 95* 3-9